Prepared testimony of Dean M. Mosely

Mr. Chairman, my name is Dean M. Mosely. I am President and CEO of U.S. Interactive, L.L.C. d/b/a AccelerNet. I thank the Committee for the opportunity to testify in support of S. 2454.

AccelerNet is the licensee of LPTV station KHLM-LP (Channel 43) in Houston, Texas. AccelerNet is in the business of providing high-speed Internet access. We do so from our Houston LPTV station in a one-way mode, using a wireline uplink pursuant to FCC digital authority. We offer downlink or downstream wireless burst speeds in excess of 4 mbps. In part as a result of the cost savings our service offers over wired Internet service, Internet service provider access rates for T-1 speeds have come down substantially in Houston, Texas.

There are inherent limitations, however, with our wireless one-way service. The principal limitation is that our service is asymmetrical in speed, with tremendous wireless downstream speed but relatively slow wired upstream speed. Our customers have told us repeatedly that they need higher upstream access speeds which a two-way wireless service would facilitate, and countless potential customers have told our sales staff that they would subscribe to our service as soon as AccelerNet offered two-way wireless service.

Two-way wireless service will enable the use of the richer content available on the Internet today, including streaming media and interactive services such as video

conferencing, telemedicine, and distance learning. It will also enable portable access to the Internet, a service that our customers are demanding. Today's business customer cannot be tied down to a wire for Internet service any more than he or she can be tied down to a wire for telephone service. Whether it is the real estate agent who needs to check the latest listings for her clients who desire to see just one more prospective home, the architect who wishes to check a design during a lull in his vacation, or the Senator needing to check his email while back home to give a speech, more and more of us would not think of traveling without our laptops.

Moreover, as Mr. Morton will explain in his testimony, as we speak, the majority of our country does not even have wireline access to high speed Internet service. For this majority of Americans in at least the near or medium term future, wireless may offer their only access to the communications capability the rest of us take for granted.

The LPTV service was created to make use of television broadcast spectrum otherwise unusable for full service television due to the separation distances required between full service television stations. S. 2454 would allow this prime spectrum to be put to use to conquer this digital divide among Internet users in the U.S. Imagine what we could do if we could provide T-1 speed Internet service to every classroom in Montana or South Carolina without having to run one wire through an asbestos insulated ceiling. Imagine the ability to bring telemedicine to every native American reservation. Imagine the ability to make available to an isolated village in Alaska a complete K-12

curriculum, with lectures, exercises, study guides and tests prepared by the very best educators in America. Wireless Internet can do this cost effectively. Wireless Internet can do this with technology that exists today. Wireless Internet can do this using LPTV stations.

The technology necessary to bring high-speed wireless Internet service to the public exists today and is in use in the United States, in Japan and in Europe. It can operate over a single television channel without causing interference to television reception. It is called Time Division Duplexing ("TDD"). TDD allows both the uplink and downlink of a wireless signal to be transmitted over the same spectrum without interfering with itself. TDD can achieve spectral efficiencies of between four to 20 times that achieved with more traditional FDD (frequency division duplexing), which requires separate transmit and receive frequencies. TDD systems have been developed and deployed by TRW and Adaptive Broadband, formerly California Microwave. Several other companies are in various stages of development of TDD systems.

I have appended to my testimony a statement prepared by Mr. Alfred Boschulte, former President of NYNEX Mobile Communications, explaining in more detail, the capabilities of TDD technology. In addition, I have appended the cover story from the April 2000 edition of RF Design, by Dr. Adel Ghanem, which discusses the difficulties of providing fixed wireless services using microwave frequencies and which delineates the numerous advantages of transmission in the lower frequency bands, including eliminating

in most instances the requisite of a professionally installed subscriber terminal. What Dr. Ghanem is describing is what we at AccelerNet have been advocating for some time: a "plug and play" high speed, cost effective wireless Internet delivery system. Upon passage of S. 2454, this system can be implemented in the very near future.

Section 336 of the Communications Act of 1934, as amended, and FCC Rule Section 73.624(c), implementing that provision, granted full service television stations broad authority to provide digital data services. DTV stations are permitted under this rule to offer "services of any nature," including data and interactive transmissions, on a supplementary or ancilliary basis. The rule sets forth no limitation in the nature of one-way or two-way service, nor does it set forth how such service may be provided. That is left to the DTV station, subject to not derogating DTV service. S. 2454 would allow similar flexibility to LPTV stations.

The Committee should be concerned to ensure that over the air television reception will not be subject to interference as a result of S.2454. As drafted, S. 2454 provides the FCC full authority to protect television reception. We have never had a complaint of interference from our one-way high speed Internet access service in Houston. Moreover, I have appended to my testimony the analysis of Dr. Daniel L. Sharre, Chief Technical Officer of Adaptive Broadband, which demonstrates that interference to television reception will not occur.

AccelerNet currently holds or has the right to acquire LPTV stations in various cities in the states of Arkansas, Arizona, Florida, Idaho, Montana, New York, Tennessee, Texas and Hawaii. We are currently in negotiations to acquire stations in Kansas, Virginia, Michigan and elsewhere throughout the U.S. Ultimately, it is our goal to be a part of providing every community in the nation with high-speed wireless Internet access. To attract sufficient capital to roll out service across the nation, we and other providers who may decide to provide a similar service need to be assured that we will not arbitrarily be displaced from our spectrum.

The adoption of S.2454 will allow AccelerNet and other service providers the opportunity to do exactly that. I urge you to support passage of this legislation.